

METHOD FOR DELETING STORED DIGITAL DATA FROM WRITE-ONCE MEMORY DEVICE

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of U.S. application serial number
09/638,439, ^{now US Patent 6658438} which is hereby incorporated by reference herein.

BACKGROUND

The present invention relates to write-once memory devices, and in particular to methods for deleting stored digital data from such devices.

Non-volatile memory is becoming standard in many products such as digital cameras and digital audio players, and write-once memory devices offer the advantage of low manufacturing costs. Upcoming copy protection standards such as the Secure Digital Media Interface require memory contents to be erased. However, erasing digital files is not possible with write-once memories, since a write-once memory by definition cannot be restored to its original, unwritten state once a file has been written into the memory.

BRIEF SUMMARY

The preferred embodiments described below operate with a write-once memory that includes a plurality of memory cells. The memory stores a digital file, and for this reason some of the memory cells are in an original, unprogrammed digital state, while others of the memory cells are in a programmed digital state. In response to a received delete command associated with the stored digital file, the embodiments described below over-write at least a portion of the stored digital file with a destructive pattern. This destructive pattern switches at least some of the memory cells associated with the digital file from the original, unprogrammed state to the programmed state. For example, some or all of the memory cells associated with the stored file can be over-written with the destructive pattern (111111).

This section has been provided by way of general introduction, and it is not intended to limit the scope of the following claims.

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